



## Goddard Procedural Requirements (GPR)

**DIRECTIVE NO.** GPR 1800.3  
**EFFECTIVE DATE:** August 22, 2005  
**EXPIRATION DATE:** August 22, 2010

**APPROVED BY Signature:** Original Signed by  
**NAME:** Edward J. Weiler  
**TITLE:** Director

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### COMPLIANCE IS MANDATORY

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**Responsible Office:** Code 250 / Safety and Environmental (S&E) Division

**Title:** Bloodborne Pathogens Exposure Control Plan

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## PREFACE

### P.1 PURPOSE

This directive establishes minimum requirements to reduce occupational exposure to blood and other potentially infectious materials that could result in transmission of bloodborne pathogens (BBP) that could lead to disease or death at the Goddard Space Flight Center (GSFC).

The purpose of this program is to eliminate or minimize employee exposure to BBP from blood and other potentially infectious materials (OPIM) through a combination of engineering and work practice controls, personal protective clothing and equipment, medical surveillance, hepatitis B vaccination, signs, labels, and training. The two most significant BBP are hepatitis B virus (HBV), which causes hepatitis B, a serious liver disease, and human immunodeficiency virus (HIV), which causes acquired immunodeficiency syndrome (AIDS).

GSFC policy is to provide a program that meets applicable Occupational Safety and Health Administration (OSHA) standard 29 CFR 1910.1030 requirements. This plan eliminates or minimizes employee exposure to BBP. The Bloodborne Pathogens Standard applies, by definition, to operations involving human blood or other potentially infectious materials of human origin. Universal precautions are followed as standard practice. Infection control for operations not covered by the Standard (i.e., rest room cleaning and sewer work) may follow these guidelines.

### P.2 APPLICABILITY

This directive is applicable to all GSFC employees, both civil servants and contractors, who may potentially be exposed to bloodborne pathogens (See Section 1.6). Note: BBP regulations do not apply to "Good Samaritan" acts performed as a voluntary response to an emergency situation.

### P.3 AUTHORITY

29 CFR 1910.1030, Bloodborne Pathogens Standard

### P.4 REFERENCES

[NPR 1800.1](#) NASA Occupational Health Program Procedures

CHECK THE GSFC DIRECTIVES MANAGEMENT SYSTEM AT  
<http://gdms.gsfc.nasa.gov> TO VERIFY THAT THIS IS THE CORRECT VERSION PRIOR TO USE.

## OSHA Fact Sheet 92-46, Bloodborne Pathogens Final Standard: Summary of Key Provisions

**P.5 CANCELLATION**

None.

**P.6 SAFETY**

None.

**P.7 TRAINING**

As required by OSHA 1910.1030, (g) (2).  
GPR 1800.3, Appendix A, Section 3.0.

**P.8 RECORDS**

Record Title	Record Custodian	Retention
Employee Health Records	Health Unit	29 CFR 1910.1030. Medical records are to be kept for each employee with occupational exposure for the duration of employment plus 30 years.
Employee Training Records	Office of Human Resources	NRRS 3/33H1.* Destroy on transfer or separation of employee, or when 5 years old, whichever is sooner.

\*NRRS – NASA Records Retention Schedules ([NPR 1441.1](#))

**P.9 METRICS**

Bloodborne Pathogen Exposure Control Plans will be reviewed on an annual basis.

**P.10 DEFINITIONS**

**Biohazard Label** – The label affixed to containers of regulated waste, refrigerator/freezers and other containers used to store, transport, or ship blood and other potentially infectious materials. The label must be fluorescent orange-red in color with the biohazard symbol and the word biohazard on the lower part of the label.

**Blood** – Human blood, human blood components, and products made from human blood.

**Bloodborne Pathogens** – Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

**Contamination** – The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

**Contaminated Laundry** – Laundry that has been soiled with blood or other potentially infectious materials or may contain sharps (see below).

**Contaminated Sharps** – Contaminated objects that can penetrate the skin, including but not limited to needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

**Contractor** – Any entity that performs services at or on behalf of GSFC, and staff, including direct hires or subcontractors.

**Decontamination** – The use of physical or chemical means to remove, inactivate, or destroy BBP on a surface or item to the point where they are no longer capable of transmitting infectious particles, and the surface or item is rendered safe for handling, use, or disposal.

**Employee** – Civil service employee, including persons working at GSFC on Federal grants.

**Engineering Controls** – Controls (e.g., sharps disposal containers, self-sheathing needles, etc.) that isolate or remove the BBP hazard from the workplace.

**Exposure Control Plan** – A written program developed and implemented by the employer that sets forth procedures, engineering controls, personal protective equipment, work practices and other methods that are capable of protecting employees from exposure to BBP, and meets the requirements spelled out by OSHA.

**Exposure Incident** – A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties. Non-intact skin includes skin with dermatitis, hangnails, cuts, abrasions, chafing, etc.

**Licensed Healthcare Professional** – A person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) "Hepatitis B Vaccination and Post-Exposure Evaluation and Follow Up" of 29 CFR 1910.1030.

**Occupational Exposure** – Reasonably anticipated skin, eyes, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

**Other Potentially Infectious Materials (OPIM)** – (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, amniotic fluid, saliva in dental

procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions, and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

**Parenteral** – Piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.

**Personal Protective Equipment (PPE)** – Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered PPE.

**Regulated Waste** – Liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes-containing blood or other potentially infectious material.

**Source Individual** – Any individual, living or dead, whose blood or other potentially infectious material may be a source of occupational exposure to the employee. Examples include, but are not limited to, health unit patients; trauma victims; injured/ill employees; human remains; and individuals that donate or sell blood or blood components.

**Universal Precautions** – An approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other BBP. Universal precautions do not apply to feces, nasal secretions, sputum, saliva, sweat, tears, urine, and vomitus, unless they contain visible blood.

**Work Practice Controls** – Controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles using a two-handed technique).

## **P.11 ACRONYMS**

- a. BBP – Bloodborne pathogen
- b. CPR – Cardiopulmonary resuscitation
- c. HBV – Hepatitis B virus
- d. HIV – Human immunodeficiency virus
- e. OPIM – Other potentially infectious materials
- f. PPE – Personal protective equipment

## PROCEDURES

In this document, a requirement is identified by “shall,” a good practice by “should,” permission by “may” or “can,” expectation by “will,” and descriptive material by “is.”

### 1. ROLES AND RESPONSIBILITIES

#### 1.1 The Safety and Environmental (S&E) Division shall:

- a. Advise and assist, on request, organizations in the development of their BBP Exposure Control Plans; and
- b. Review and approve all BBP exposure control plans for compliance with 29 CFR 1910.1030, recommend appropriate changes, and submit approved exposure control plans to the GSFC Medical Director. These plans must be submitted to the S&E Division 30 days prior to commencement of work and at least annually thereafter. Plans must be updated and will be reviewed 30 days prior to new or revised procedures being implemented.

#### 1.2 Supervisors and Managers shall:

Understand and implement applicable regulations, thereby ensuring the safe conduct of operations under their control. The Division or Branch Chief shall provide resources and direction for compliance with OSHA regulations and this plan, delegating the implementation of the Bloodborne Pathogens Exposure Control Plan to first-line supervisors as appropriate. Essential functions include:

- a. Identifying any procedures, positions, and new or revised tasks that include occupational exposure to BBP, and communicating program plans and changes relevant to the exposure to S&E;
- b. Ensuring that employees with occupational exposure receive timely orientation and training;
- c. Ensuring that new employees are referred to the health unit for hepatitis B consultation and vaccination if necessary. If declined, the Hepatitis B Vaccine Declination (Appendix B) must be signed;
- d. Facilitating and ensuring compliance with this plan and site-specific exposure controls. Maintaining documentation for specific task controls, cleaning schedules and records, inspection schedules and records, and operating procedures;
- e. Performing and coordinating required responses to exposure incidents;
- f. Ensuring that all biohazardous waste is disposed of properly; and
- g. Identifying persons who may be expected to provide first aid or cardiopulmonary resuscitation (CPR) in an occupational emergency situation as designated emergency responders. Include an appropriate job element in their performance plan, and ensure that designated responders receive regular annual and supplemental training as required.

#### 1.3 Employees shall:

Conduct tasks and procedures in a manner that minimizes risk to self and others, in compliance with guidelines specified in this Plan and prudent practices. The employees shall:

- a. Attend training;
- b. Use universal precautions;
- c. Report mishaps;
- d. Follow engineering and work practice controls; and
- e. Properly dispose of sharps (e.g., diabetics) in a puncture-proof container with a lid.

**1.4 The Health Unit**, as the Government's delegated representative, performs some responsibilities of the employer as defined in 29 CFR 1910.1030, and therefore shall:

- a. Provide medical consultation, hepatitis B vaccine, and vaccination series to NASA employees who anticipate occupational exposure and exposure incident follow up as recommended by a GSFC physician;
- b. Maintain GSFC medical records as required by 29 CFR 1910.1030, and provide copies of records as requested by exposed employees;
- c. Provide emergency care to any person who experiences exposure while providing emergency aid and, with consent, transfers relevant medical records to the health care provider designated by the exposed person; and
- d. Provide required BBP training.

**1.5 Contracting Officer's Technical Representative (COTR)** shall:

Ensure that contractors if required by potential occupational exposure, have a BBP program, and that it is submitted 30 days prior to commencement of work for review and concurrence to the S&E Division as indicated above.

**1.6 Job Categories at Risk of BBP**

Job categories where occupational exposures to blood and OPIM are reasonably anticipated are:

- a. Medical services personnel;
- b. Security personnel; and
- c. Custodial personnel whose tasks include cleaning up blood or OPIM after an occupational accident, or medical incident.

1.6.1 "Good Samaritan" acts, such as assisting a coworker with a nosebleed, are not considered an occupational exposure and do not require establishment of a program.

1.6.2 Any organization with civil servant or contractor employees who could be reasonably anticipated to face contact with blood and OPIM as the result of performing their job duties, shall comply with the OSHA requirements. Appendix A provides an overview of the requirements of this OSHA standard.

## **2. BBP Program**

**2.1** Civil servant organizations shall follow the requirements of GSFC's BBP program maintained by the S&E Division. The organization shall:

- a. Prepare an Exposure Control Plan for their operations involving potential exposure to BBP;
- b. Submit the Exposure Control Plan to the S&E Division 30 days prior to commencement of work for review, comment, and concurrence, for inclusion in the GSFC program; and
- c. Update the plan 30 days prior to implementing new or revised procedures or at least annually and submit to the S&E Division.

**2.2** Onsite Contractors shall:

- a. Establish and implement a BBP program meeting the requirements of the regulation;
- b. Submit the Exposure Control Plan to S&E for review, comment, and concurrence within 10 days following contract award or 30 days prior to the commencement of tasks involving potential exposure to BBP;
- c. Update the plan 30 days prior to implementing new or revised procedures or at least annually and submit to the S&E Division.

**2.3** Off-site contractors shall:

- a. Submit a copy of the Exposure Control Plan to S&E for review, comment, and concurrence 30 days prior to commencement of tasks involving potential exposure to BBP on-Center; and
- b. Update the plan 30 days prior to implementing new or revised procedures or at least annually and submit to the S&E Division.

## **APPENDIX A**

### **BLOODBORNE PATHOGENS STANDARD: SUMMARY OF KEY PROVISIONS**

#### **1.0 PURPOSE**

Limits occupational exposure to blood and other potentially infectious materials (OPIM) since any exposure could result in transmission of bloodborne pathogens which could lead to disease or death.

#### **2.0 SCOPE**

2.1 Covers all employees who could be “reasonably anticipated” as the result of performing their job duties to face contact with blood and OPIM. OSHA has not attempted to list all occupations where exposures could occur. “Good Samaritan” acts, such as assisting a coworker with a nosebleed, would not be considered occupational exposure.

2.2 Infectious materials include semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procures, body fluid visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. They also include any unfixed tissue or organ other than intact skin from a human (living or dead) and human immunodeficiency virus (HIV) – containing cell or tissue cultures, organ cultures, and HIV or Hepatitis B (HBV) – containing culture medium or other solutions as well as blood, organs, or other tissues from experimental animals infected with HIV or HBV.

#### **3.0 EDUCATION AND TRAINING**

3.1 Employees must be trained upon initial assignment to a job involving exposure to bloodborne pathogens, and annually thereafter. This training will include:

- a. The requirements of the OSHA standard;
- b. The epidemiology and symptoms of bloodborne diseases;
- c. The modes of transmission of bloodborne pathogens;
- d. An explanation of the exposure control plan, including the use and limitations of safe work practices and engineering controls and how to select, use, remove, handle, decontaminate, and dispose of personal protective clothing and equipment;
- e. Methods to control transmission of HIV and HBV;
- f. How to recognize occupational exposure;
- g. The availability of free HBV vaccination;
- h. Labels, signs, and color coding for bloodborne pathogens; and
- i. Procedures for reporting exposure incidents and post exposure follow up.

3.2 Additional training must be provided when existing tasks are modified or new tasks are added that may affect employee exposure to bloodborne pathogens. This training may be limited to the new or modified tasks.



3.3 The documentation of the civil service individuals trained must be provided to S&E.

#### **4.0 EXPOSURE CONTROL PLAN**

Requires employers to identify, in writing, tasks and procedures as well as job classifications where occupational exposure to blood occurs – without regard to personal protective clothing and equipment. It must also set forth the schedule for implementing other provisions of the standard and specify the procedure for evaluating circumstances surrounding exposure incidents. The plan must be accessible to employees and available to OSHA. Employers must review and update it at least annually – more often if necessary to accommodate workplace changes.

#### **5.0 EXPOSURE CONTROL PROCEDURES**

Specific procedures have been developed for tasks involving exposure to blood and OPIM and are described in Appendix B. These procedures include engineering and work practice controls, housekeeping and decontamination procedures, personal protective equipment, laundering of contaminated clothing, and the handling of potentially infectious waste. These procedures must be followed.

#### **6.0 EXPOSURE DETERMINATION**

The following jobs have been identified as having tasks involving employee exposure to bloodborne pathogens and are covered by this program: security personnel, medical services personnel, custodial personnel whose tasks include the GSFC Health Unit, and cleaning up blood or OPIM after an occupational accident, similar operations, or as found onsite. These jobs are performed by support service contractors who are required to have their own exposure control program.

#### **7.0 HAZARD COMMUNICATION**

7.1 Requires warning labels including the orange or orange-red biohazard symbol affixed to containers of regulated waste, refrigerators and freezers, and other containers that are used to store or transport blood or other potentially infectious materials. Red bags or containers may be used instead of labeling.

7.2 When a facility uses universal precautions in its handling of all specimens, labeling is not required within the facility. Likewise, when all laundry is handled with universal precautions, the laundry need not be labeled.

7.3 Blood that has been tested and found free of HIV or HBV and released for clinical use, and regulated waste that has been decontaminated, need not be labeled.

7.4 Signs must be used to identify restricted areas in HIV and HBV research laboratories and production facilities.

## **8.0 HEPATITIS B VACCINATION**

Hepatitis B vaccination is recognized as a safe and effective means of protecting against HBV infection. Hepatitis B vaccination shall be provided by the Health Unit to civil service employees who have occupational exposure to bloodborne pathogens within 10 working days of initial assignment, at no cost, and according to the latest recommendations of the U.S. Public Health Service (USPHS). Contractors shall provide the vaccine to their employees. Prescreening may not be required as a condition of receiving the vaccine. Should booster doses later be recommended by the USPHS, employees will be offered them.

Vaccinations are not necessary for employees who have previously completed the HBV vaccination series, where antibody testing confirms the employee is already immune to HBV, or if vaccination is contraindicated for medical reasons. Employees who decline vaccination must sign a declination form indicating they were offered the vaccination but refused it. The employee may begin the vaccination series at a later date at their request and if they are still occupationally exposed to bloodborne pathogens.

## **9.0 HIV AND HBV RESEARCH LABORATORIES AND PRODUCTION FACILITIES**

Calls for these facilities to follow standard microbiological practices and specifies additional practices intended to minimize exposures of employees working with concentrated viruses and reduce the risk of accidental exposure for other employees at the facility. These facilities must include required containment equipment and an autoclave for decontamination of regulated waste and must be constructed to limit risks and enable easy clean up. Additional training and experience requirements apply to workers in these facilities.

## **10.0 INFORMATION AND TRAINING**

Mandates training within 90 days of effective date, initially upon assignment and annually – employees who have received appropriate training within the past year need only receive additional training in items not previously covered. Training must include making accessible a copy of the regulatory text of the standard and explanation of its contents, general discussion on bloodborne diseases and their transmission, exposure control plan, engineering and work practice controls, personal protective equipment, hepatitis B vaccine, response to emergencies involving blood, how to handle exposure incidents, the post-exposure evaluation and follow-up program, and signs/labels/color-coding. There must be opportunity for questions and answers, and the trainer must be knowledgeable in the subject matter. Laboratory and production facility workers must receive additional specialized initial training.

## **11.0 LABELS**

All containers with blood or OPIM, contaminated waste, and clothing must be labeled as a biohazard. Standard biohazard labels are acceptable; however, red bags or red containers may be used instead of labels.

## **12.0 METHODS OF COMPLIANCE**

12.1 Mandates universal precautions (treating body fluids/materials as if infectious), emphasizing engineering and work practice controls. The standard stresses hand washing and requires employers to provide facilities and ensure that employees use them following exposure to blood. It sets forth procedures to minimize needle sticks, minimize splashing and spraying of blood, ensure appropriate packaging of specimens and regulated wastes, and decontaminate equipment or label it as contaminated before shipping to serving facilities.

12.2 Employers must provide, at no cost, and require employees to use appropriate personal protective equipment such as gloves, gowns, masks, mouthpieces, and resuscitation bags and must clean, repair, and replace these when necessary. Gloves are not necessarily required for routine phlebotomies in volunteer blood donation centers but must be made available to employees who want them.

12.3 The standard requires a written schedule for cleaning and identifying the method of decontamination to be used, in addition to cleaning following contact with blood or other potentially, infectious materials. It specifies methods for disposing of contaminated sharps and sets forth standards for containers for these items and other regulated waste. Further, the standard includes provisions for handling contaminated laundry to minimize exposures.

## **13.0 POST-EXPOSURE EVALUATION AND FOLLOW UP**

Specifies procedures be made available to all employees who have had an exposure incident plus any laboratory tests must be conducted by an accredited laboratory at no cost to the employee. Follow up must include a confidential medical evaluation documenting the circumstances of exposure, identifying and testing the source individual if feasible, testing the exposed employee's blood if he/she consents, post-exposure prophylaxis, counseling, and evaluation of reported illnesses. Healthcare professionals must be provided specified information to facilitate the evaluation and their written opinion on the need for hepatitis B vaccination following the exposure. Information such as the employee's ability to receive the hepatitis B vaccine must be supplied to the employer. All diagnoses must remain confidential.

## **14.0 RECORDKEEPING**

Calls for medical records to be kept for each employee with occupational exposure for the duration of employment plus 30 years, must be confidential, and must include name and social security number; hepatitis B vaccination status (including dates); results of any examinations, medical testing and follow-up procedures; a copy of the healthcare professional's written opinion; and a copy of information

provided to the healthcare professional. Training records must be maintained for 3 years and must include dates, contents of the training program or a summary, trainer's name and qualifications, and names and job titles of all persons attending the sessions. Medical records must be made available to the subject employee, anyone with written consent of the employee, OSHA and NIOSH--they are not available to the employer. Disposal of records must be in accordance with OSHA's standard covering access to records.

## **15.0 UNIVERSAL PRECAUTIONS**

Universal precautions is an approach to infection control in which all human blood and OPIM are treated as if known to be infectious for human immunodeficiency virus (HIV), hepatitis B virus (HBV), and other bloodborne pathogens. Universal precautions are a requirement of the OSHA standard and must be followed.

## **16.0 REPORTING AN EXPOSURE**

Any employee involved in an incident exposing them to blood or OPIM must immediately report the incident to their supervisor and the Health Unit. The Health Unit will provide post-exposure evaluation and follow-up services to the employee.

## **17.0 IMPLEMENTATION DATES**

This program is currently implemented.

## **18.0 DATES**

Effective date: March 6, 1992. Exposure control plan: May 5, 1992. Information and training requirements and recordkeeping: June 4, 1992. The following other provisions took effect on July 6, 1992: Engineering and work practice controls, personal protective equipment, housekeeping, special provisions covering HIV and HBV research laboratories and production facilities, hepatitis B vaccination and post-exposure evaluation and follow up and labels and signs.

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## APPENDIX B

### Hepatitis B Vaccine Declination (Mandatory)

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## APPENDIX C

### METHODS OF COMPLIANCE

The application of engineering control principles to work practices and substantial administrative controls shall be used to eliminate or minimize employee or contractor exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall be used.

#### A. APPROVED GENERAL WORK PRACTICES

##### 1. Standard Precautions (formerly Universal Precautions)

Standard precautions should be used by all employees or contractors whenever the potential for exposure to bloodborne pathogens exists. Employees and contractors should adhere rigorously to the infection control precautions noted in this section in order to minimize the risk of exposure to blood and other body fluids. All body fluids shall be considered potentially infectious materials. All personal protective equipment required to perform tasks which place a worker at risk for bloodborne pathogen exposure will be supplied, cleaned, disposed of, repaired, or replaced as necessary.

Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in areas where there is a reasonable likelihood of occupational exposure to bloodborne pathogens.

Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets, or on counters where blood or other potentially infectious materials are present.

##### 2. Hand Washing

All clinical facilities must have hand washing facilities that are readily accessible to employees.

When access to hand washing facilities is not feasible, such as may be encountered on certain outreach activities, either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes are to be used. When antiseptic hand cleansers or towelettes are used, wash hands with soap and running water as soon as feasible.

Hands are to be washed immediately or as soon as feasible after removal of gloves or other personal protective equipment.

Hands and any other exposed skin are to be washed with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.

When washing hands with soap and water, wet hands first with water, apply an amount of product recommended by the manufacturer to hands, and rub hands together vigorously for at least 15 seconds, covering all surfaces of the hands and fingers. Rinse hands with water and dry thoroughly with a disposable towel. Use towel to turn off the faucet.

CDC issued updated hand washing recommendations in MMWR October 25, 2002 / 51(RR16);1-44. Review the full report at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5116a1.htm>

### **3. Use of Gloves**

Gloves are to be worn when it can be reasonably anticipated that an employee or contractor's hand may be in contact with blood or other potentially infectious materials, including touching contaminated items or surfaces. Gloves should be located at sites that provide for easy access. Hands shall be washed thoroughly and immediately after possible contact with blood and/or body fluids as well as before putting on and after taking off the gloves. Although gloves are generally not required for parenteral injections unless circumstances indicate increased risk for blood exposure, health providers are highly encouraged to use gloves during this procedure. Gloves are required for phlebotomy procedures. Gloves must be of appropriate material.

Latex allergies are a serious health concern for both caregivers and recipients of care. Due to the potential for allergic reactions, use of latex gloves is strongly discouraged. Vinyl gloves are the preferred option. If latex gloves are being worn when providing patient care, the clinician should verify that the patient does not have a history of latex allergy. Gloves are to be of appropriate size for each worker. In a health care setting when doing procedures where gloves are needed, the gloves should be changed between patients. If gloves become contaminated with blood and/or other body fluids, the gloves must be changed and disposed of properly.

Information on latex glove allergies can be found at these websites for OSHA and NIOSH. The OSHA site contains a link to the OSHA Technical Information Bulletin, (1999, April 12) warning of the risks of latex glove use. <http://www.osha.gov/SLTC/latexallergy/> <http://www.cdc.gov/niosh/latexalt.html>

Change gloves when contaminated or as soon as feasible if torn, punctured, or when their ability to function as a barrier is compromised for any reason.

### **4. Use of Masks, Eye Protection, and Face Shields**

Masks, eye protection, and face shields shall be worn whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

### **5. Use of Gowns**

Gowns, aprons, and other protective body clothing shall be worn in occupational exposure situations. If contaminated, these gowns should be discarded (if disposable) or placed in a special receptacle to be cleaned (see Section 11 on handling contaminated linen).

All personal protective equipment is to be removed prior to leaving the work area and an extra set of clothing should be available in case of contamination of the first set.

## **6. Mandatory use of Engineered Sharps**

- a. **Only engineered sharps devices are to be used during venipunctures, injections, and other clinical procedures involving use of sharps.** Non-engineered sharps should not be stocked in the clinic. Any remaining supplies of non-engineered sharps should be immediately and safely discarded.
- b. The only permitted exception to non-engineered sharps is when such devices are not yet available. This might include some types of pre-filled vaccination injections. As these items become available in an engineered sharps format, the engineered version should be used.

## **7. Handling and Disposal of Sharps**

- a. All used or potentially contaminated sharps should be disposed of in puncture-resistant sharps containers located as close as practical to the area of use. The sharps containers shall be located in all areas where needles and sharps are commonly used. Needles are not to be recapped, purposefully bent, broken, removed from disposable syringes, or otherwise manipulated by hand. Sharps containers should be labeled as a biohazard.
- b. Never overfill a sharps container. Overfilled sharps containers are known to be a significant cause of needle stick injuries. Containers ready for disposal are to be sealed and disposed in an orange/red biohazard bag.
- c. All biohazard waste material must be disposed of according to state/local regulations.

## **8. Use of Resuscitation (CPR) Equipment**

Pocket masks and resuscitation bags shall be used for all resuscitation where emergency mouth-to-mouth resuscitation is indicated.

## **9. Handling Contaminated Linen**

Any article saturated with potentially infectious material should be air dried over the utility sink at the health center or placed in a red bag inside the laundry bag and labeled as biohazard.

Linen contaminated with blood and/or other body fluids shall be placed in red bags labeled as biohazard. If the bag is punctured or if outside contamination of the bag is likely, a second bag shall be used. Gloves shall be worn when working with linen contaminated with blood and/or other body fluids.

Home laundering of contaminated linen is not permitted.

Follow state/local protocols for processing contaminated laundry. It must be determined that the facility to which contaminated laundry is shipped utilizes standard precautions in the handling of all laundry. If not, all bags or containers of contaminated laundry must be properly labeled as biohazard.



## 10. Cleaning Blood and/or Body Fluid Spill

The following procedures shall be utilized for cleaning up blood or body fluid spills:

- a. Area of the spill shall be cordoned off to prevent the accidental spread of body fluids.
- b. Wear vinyl or latex gloves. If circumstances indicate the need (such as high probability of splashes), wear protective gowns and face shields.
- c. An appropriate EPA-registered tuberculocidal germicide such as Envirocide bleach substitute, or bleach solution, should be prepared. If a bleach solution is used it can be prepared with 800 ppm NaClO solution (e.g. standard household chlorine bleach) by mixing a ratio of 1:10 of bleach to water. Bleach solution should only be used on surfaces not likely to be harmed by the chemical reaction of the bleach, such as hard floors. Do not use bleach solution on carpet. Bleach solution should be made fresh daily. Dispose of solution that is more than one day old. Do not mix bleach and germicides together due to possible chemical reactions capable of producing dangerous fumes. Bleach and bleach solutions are not to be stored in glass containers since this can have a negative effect on potency.

d. Remove any large pieces of glass or other particulate material. **Do not pick up material with hands.** Use a plastic scoop to remove this matter. A tongue depressor may be used to maneuver items onto the scoop. Take care not to flip material with the tongue depressor. Particulate material and tongue depressors are placed in a puncture-resistant and splatter-proof container. Use a one-handed technique whenever possible (such as use of a forceps) to pick up any contaminated sharp objects that could puncture PPE.

Place the scoop back in a clean place after being disinfected.

e. Carefully remove the body fluids from the spill surface with gauze sponges or paper towels. When the sponge or towel is saturated, use a fresh one. Do not wring out fluids. All soiled materials are placed in the puncture-resistant and splatter-proof container.

f. Once body fluids have been removed from the area, the germicidal solution is used to decontaminate the area. This is done by starting two (2) inches outside the spill and moving into the center of the spill by making a series of overlapping concentric circles with a sponge. The area should be allowed to air dry and the process is repeated. The soiled sponges are placed into the puncture-resistant splatter-proof container.

g. All contaminated material used in the cleanup are placed in a safe holding area until disposed of according to applicable regulations.

## B. SPECIFIC PROCEDURES FOR HANDLING POTENTIAL EXPOSURES

### 1. General Exposures:

- a. **Cleaning Spills** – See specific instruction in A.10 above.

- b. **Emesis** – Gloves must be worn when handling, cleaning, and/or disposing of emesis fluid.
- c. **Injuries** – Gloves are worn whenever blood and/or other body fluids are present. Additional PPE such as gown and face mask is indicated for injuries with splash possibilities such as arterial injury.
- d. **Disposal of Syringes/Needles** – Follow instructions for sharps in A.7 above.
- e. **Reusable Instruments** – Gloves must be worn in handling any contaminated instruments. Never reach into containers holding contaminated instruments that have surfaces capable of damaging gloves. Use a device such as a forceps to manipulate such items. Disposable engineered sharps must be used whenever possible.
- f. **Special Note on Exposures of Pregnant Women** – Pregnant women are not known to be at greater risk of contracting HBV, HCV or HIV infections than workers who are not pregnant. However, if a worker develops HIV infection during pregnancy, the infant is at increased risk of infection resulting from perinatal transmission. Because of this risk, pregnant women should be especially familiar with the above precautions.

## 2. Health Care Worker Exposure: Performing Procedures

- a. **Phlebotomy (Drawing Blood)** – Gloves must be worn.
- b. **Centrifugation of Blood** – Gloves must be worn when handling specimens and centrifuge covers in place during operation of the centrifuge.
- c. **Serum Transfer** – Gloves and face shield must be worn. Use only one piece disposable squeeze bulb-type pipette. To avoid aerosol spray, use minimal force to expel fluid from pipettes.
- d. **Urine Collection** – Gloves must be worn and disposed of after each urine collection. Used urine collection containers may be rinsed in a utility sink (but not a sink used for food handling) and then disposed of as regular garbage.
- e. **Preparing Pap Smear Slides** – Gloves must be worn when assisting with pap smears and when handling and preparing the slides for mailing.
- f. **Using Glucometers** – Gloves must be worn when performing finger sticks and handling glucometer slides. Use only engineered sharps devices to perform the finger stick.
- g. **Injury Care** – Gloves should be worn anytime there is a potential for contact with blood, any other body fluids, or other potentially contaminated material. (See also A.3)
- h. **Physical Examination (including Pelvic Exams)** – Gloves must be worn by the examiner whenever there is a potential for exposure to body fluids or other contaminated material or tissue. Therefore, gloves should always be worn for all examination of the eyes where there is contact with

tears, digital exams of the mouth, examinations of external genitalia, pelvic exams, rectal exams; palpation of any lesions which are weeping or draining; and any other situations with potential exposure to blood or body fluids. This does not include palpation of areas of the body where the only contact is with intact skin.

i. **Wound Care and Dressing Changes** – Gloves must be worn if blood or tissue fluids are present or are expected to be present.

### 3. **Health Care Worker Exposures: Handling Contaminated Items**

a. **Disposal of Syringes/Needles** – Please follow the instructions for sharps in Section A.7.

b. **Cleaning Spirometers** – Newer model spirometers do not require cleaning.

c. **Cleaning Breast Pumps and Milk Storage** – Thorough hand washing must be done before and after using the breast pumps. Mothers should provide their own breast pumps. In the case of a communal breast pump provided by the agency, each user is to bring in her own supplies and equipment. No part of the stationary equipment is to be touched by another mother's milk in order to eliminate the chance of cross contamination. In the event of accidental spillage of milk, surfaces must be cleaned immediately using paper towels to absorb milk and followed by a 1:10 bleach solution or appropriate disinfectant.

All milk extracted using a breast pump should be labeled with the employee's name and refrigerated in a separate area away from any medication, food, or lab specimens. This will require a separate refrigerator to be used only for breast milk. Mothers must be cautioned not to store their milk in communal refrigerators in their offices.

d. **Handling Contaminated Instruments** – Gloves must be worn in handling and/or cleaning any contaminated instruments. Any such instruments with sharp edges are not to be cleaned directly by hand.

e. **Handling Hemocult Slides and Thermometer Covers** – Gloves must be worn when handling slides for occult blood and thermometer covers. For disposal, all slides and covers must be bagged in a plastic bag that does not leak.

f. **Handling Emesis Fluid** – Gloves must be worn when handling, cleaning, and/or disposing of emesis fluid.

g. **Cleaning Portable Commodes** – Gloves must be worn when emptying and/or cleaning portable commodes.

h. **Contaminated Equipment** – If a piece of equipment is contaminated and cannot be decontaminated prior to shipping out to repair, affix a biohazard label to the item and indicate the area of the equipment that cannot be cleaned.

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### CHANGE HISTORY LOG

Revision	Effective Date	Description of Changes
Baseline	8/22/2005	Initial Release

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